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Robert R. Friedlander

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EXAMINER

STERRETT, JONATHAN G

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,291

Applicant(s)

FRIEDLANDER ET AL.

Examiner

Jonathan G. Sterrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Summary

1. This Non-Final Action is responsive to the amendment of October 3, 2006. The amendment of October 3, 2006 amended claims 1, 10, 15, 23 and 32. Currently **Claims 1-33** are pending.

Response to Arguments

2. The applicant's arguments have been fully considered but are not persuasive.
3. The applicant argues with respect to claims 1, 15 and 23 on page 11 that the cited references fail to teach the querying, quantifying, modifying and comparing steps in anticipation of implementing a proposed technical change in an organization. The applicant alleges in support of this argument that Guinta is used to assess an existing organization or process.

The examiner respectfully disagrees.

Guinta's described use of his invention, as noted by the applicant, does not prevent Guinta's invention from being used prior to implementing a technical change. Guinta teaches performing an assessment and then implementing corrective action as part of that assessment. The assessment taught by Guinta is prior to the corrective action and thus prior to the technical change. Curtis teaches where the assessment of the software development process is in advance of a change. The rejection was made over a combination of Guinta and Curtiss. Additionally the examiner would point out

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that it is not even clear what the claim terms "in anticipation of" mean. It is not at all clear how a subjective limitation like "anticipation" would be applied in this case. Please see the 112 2nd rejections below.

4. The applicant argues with respect to claims 1, 15 and 23 on page 11 that the Curtis reference does not teach "technical change" as is cited in the claims.

The examiner respectfully disagrees.

The specification does not provide a definitive definition (i.e. lexicography) for what 'technical' change means¹. The examiner thus turns to the dictionary² for a definition of the word "technical" to determine its ordinary and accustomed meaning³. Merriam-Webster's Collegiate dictionary 10th edition defines "technical" as: "of or relating to a practical subject organized on scientific principles". According to this definition, Curtiss teaches an assessment in anticipation of a proposed technical

¹ "Absent an express definition in their specification [i.e. lexicography], the fact that appellants can point to definitions or usages that conform to their interpretation does not make the PTO's definition unreasonable when the PTO can point to other sources that support its interpretation." *Morris*, 127 F.3d at 1056, 44 USPQ2d at 1029.

² As to the use of a dictionary to providing definitions, the examiner notes: "It is well settled that dictionaries provide evidence of a claim term's ordinary meaning. Such dictionaries include dictionaries of the English language, which in most cases will provide the proper definition and usages, and technical dictionaries, encyclopedias and treatises, which may be used for established specialized meanings in particular fields of art." *Inverness Medical v. Biomeditech Co.* 309 F.3d at 1369, 64 USPQ2d at 1930. See also *Inverness Medical v. Warner Lambert Co.* 309 F. 3d at 1378, 64 USPQ2d at 1936 ("We begin claim construction analysis with the ordinary meaning of the disputed claim term. It is well settled that dictionary definitions provide evidence of a claim term's ordinary meaning. Potentially relevant dictionaries include dictionaries of the English language (providing general definitions and usages) and technical dictionaries, encyclopedias, and treatises (providing specialized meanings used in particular fields of art).") (citations and quotations omitted); and *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002) ("For such ordinary meaning, we turn to the dictionary definition of the term.")

³ "In examining a patent claim, the PTO must apply the *broadest reasonable meaning* to the claim language Words in a claim are to be given their *ordinary and accustomed meaning* unless the

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change because software development is technical (i.e. it relates to a practical subject, i.e. software development, that is organized on scientific principles, i.e. the development of something that executes on a computer is organized according to the scientific principles that govern how a computer executes code). As far as the term “working environment”, software development is technical change in the working environment because as the development work progresses, the staff who are responsible for the development will perform technical work (e.g. write code and debug it) on different parts of the software project, thus it is a “technical change in a working environment”. The examiner notes that the terms “technical change in a working environment” are extremely broad terms. For example, a technical change can be changing a car’s oil, baking cookies, balancing a checkbook, washing one’s hair and driving home from work. A working environment is virtually anywhere that work is performed, e.g. a kitchen, a garage, a field, an office, a restaurant.

5. The applicant argues with respect to claims 1, 15 and 23 on page 12 that the Guinta does not teach quantifying a baseline response that has been input.

The examiner respectfully disagrees.

Guinta meets the claimed limitations. The claims cite a querying step, where the querying step is followed by the intended use wording “to obtain a baseline response”. Guinta teaches a querying of an organization to receive a response. Guinta teaches a baseline response being quantified into a raw score where the response is quantified by

inventor chose to be his own lexicographer in the specification. [Emphasis added].” See *e.g. In re*

a value. The claims do not specify who does this quantification step. Guinta meets the claim limitations because the person quantifies their response by assigning a value to it.

6. The applicant argues with respect to claims 1, 15 and 23 on page 13 that Guinta fails to teach modifying the raw score using at least one modifier that relates to a traditional response to change to yield a skill score. The applicant further states that that Guinta's modifier does not relate to the tradition of the organization, but rather "how extensively the organization is deployed to address that issue".

The examiner respectfully disagrees.

The applicant has not laid out a definitive definition that is established with "clarity, precision and deliberateness"⁴ in the specification as to what "relates to a traditional response to change" actually means. Accordingly, the examiner relies on Webster's Collegiate Dictionary 10th edition for a definition of "traditional". Webster's defines traditional as "an established pattern of thought, action or behavior". The assessment taught by Guinta provides a modifier that relates to a traditional response to change, because it relates to how extensive a practice (i.e. a pattern of behavior) has been adopted (i.e. practiced) by the organization, i.e. how traditional is the practice that is being evaluated.

The examiner contends that the applicant is reading meaning from the specification into the claims to make the assessment as to what "traditional" means.

Bass, 314 F.3d at 577, 65 USPQ2d at 1158.

⁴ "The patentee's lexicography must, of course, appear 'with reasonable clarity, deliberateness, and precision' before it can affect the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243,

According to the MPEP 2111.01, this is improper. There are two ways to link the claims to the specification in ex parte examination. One is through invoking 112 paragraph 6, which the applicants have not done. The other is through the applicant acting as their own lexicographer. Since neither of these are the case, the examiner is relying on Webster's to provide an ordinary and accustomed meaning as to what 'traditional' means, i.e. relating to a traditional response to change.

7. The applicant argues with respect to claims 1, 15 and 23 on page 14 that the Curtis reference does not teach "technical change" as is cited in the claims.

The examiner respectfully disagrees.

The examiner refers the applicants to the argument presented above with regard to exactly what "technical" change means. The examiner again posits that Curtiss addresses technical change in that the change Curtiss is addressing deals with software development (i.e. a practical subject organized on scientific principles).

8. The applicant argues with respect to claim 2 on page 14 that Guinta's "response" is not based on a predicted response to change as is claimed. The applicant alleges that this is based on the guidelines to improve the current weakness.

The examiner respectfully disagrees.

The limitation the applicant cites is rejected over a combination of Guinta and Curtiss. Curtiss teaches where a response to a proposed technical change is

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determined based on an assessment. The capability maturity model teaches assessment as part of an ongoing effort to improve the effectiveness of an organization. CMM teaches that improvement in software development (i.e. the proposed technical change) is preceded by a diagnostic to assess how the organization will perform in the development process. Guinta teaches the querying, quantifying, modifying and comparing steps. One of ordinary skill in the art would modify Guinta's teachings with those of Curtiss to anticipate the claimed invention with a reasonable expectation of success.

9. The applicant argues that it is not common knowledge to provide answers in a yes/no/sometimes format. The applicant alleges that the examiner has failed to provide a prima facie case of obviousness.

The examiner respectfully disagrees.

The challenge to the Official Notice regarding answers being provided in a yes/no/sometimes format was replied to in the last Office Action where the reference Ahmed US 2001/0107824 was provided. Additionally these arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The applicant cites the claim language in combination with the parent, independent claim as being not obvious without stating why it is not obvious over the cited prior art.

10. The applicant argues with respect to "Other rejections under 35 USC 103(a)" that the other claims are allowable.

The examiner respectfully disagrees.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

11. The examiner notes that Official Notice was taken on pages 17 and 18 regarding types of hierarchies. Since the Official Notice was not traversed, it is taken to be admitted prior art.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Under the statutory requirement of 35 U.S.C. § 101, a claimed invention must produce a useful, concrete, and tangible result. For a claim to be useful, it must yield a

result that is specific, substantial, and credible (MPEP § 2107). A concrete result is one that is substantially repeatable, i.e., it produces substantially the same result over and over again (*In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)). In order to be tangible, a claimed invention must set forth a practical application that generates a real-world result, i.e., the claim must be more than a mere abstraction (*Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77). Additionally, a claim may not preempt abstract ideas, laws of nature or natural phenomena nor may a claim preempt every “substantial practical application” of an abstract idea, law of nature or natural phenomena because it would in practical effect be a patent on the judicial exceptions themselves (*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)). (Please refer to the “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” for further explanation of the statutory requirement of 35 U.S.C. § 101.)

Regarding **Claims 1, 15, 23 and 32**, the claim’s preamble states that the claim is for implementing a change. However, none of the cited limitations, taken together or individual claim that a change is implemented, therefore the claim does not provide a **tangible** result. (examiner note: in the case of system or product claims, a tangible rejection can be overcome by making the output of the claims tangible, e.g. being displayed, stored or printed).

Furthermore, regarding **Claims 1, 10, 15, 23 and 32**, in addition to above, the claims cite querying, quantifying, modifying and comparing functionality to predict a response to a proposed technical change. However, these steps would provide an

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output (i.e. a predicted response) that is substantially different, depending on the individual that is utilizing these steps. The specification does not provide sufficient guidelines for a practitioner of the invention to quantify a baseline response, modify it, and compare it to a required score to predict a response. Thus, one individual using the claimed invention could realize a substantially different outcome than another individual (the specification does not provide guidelines, e.g. tables, to enable a practitioner to know, for example, what the threshold for a skill score is, in order to provide a basis for a prediction. Because the claims may be used as such to provide different outcomes, the invention as claimed does not provide for a result that is substantially repeatable, and therefore does not provide a **concrete** result.

The comparison of a skill score with a required score does not provide a specific result. It is not claimed what the results of the comparison are, and therefore the claims do not provide a specific result. Because the steps contained result in a claim that does not produce a specific result, the claim lacks utility (i.e. is not **useful**).

Because **Claims 1, 15, 23 and 32** do not provide for a tangible, concrete and useful result and **Claim 10** does not provide for a concrete and useful result, these claims are rejected under 35 USC 101.

Claims 2-9, 11-14, 16-22, 24-31 and 33 depend on **Claims 1, 10, 15, 23 and 32**, respectively, and are therefore non-statutory under 35 USC 101 for at least the reasons cited above for **Claims 1, 10, 15, 23 and 32**.

Examiner comment: Regarding the concrete (i.e. substantially repeatable) aspect of the 101 rejection above, the examiner provides the following example. Let's say two users of the invention wanted to implement technical change in a construction company. We'll call the first user "Fred". The specification does not tell Fred what questions make up a query to effectively provide a comprehensive assessment. The specification does not tell Fred for his construction company how the answers are to be quantified. There are some general guidelines in the specification, but nothing that tells Fred for his construction company what questions to ask, what quantification values are, what modifier values are and also what the results are to be compared to in order to determine if the company is resistant to change. So Fred has to create this using the very limited information in the specification. In fact, Fred will have to experiment to determine what the final scored outcome needs to be to indicate resistance to change so that he can effectively implement a technical change.

If "Sally" attempts to utilize the invention for another identical construction company, then Sally will have to repeat the learning and experimentation process that Fred went through. In fact, since the specification does not provide the necessary guidelines regarding the steps claimed, Sally will provide a substantially different result based on her knowledge and experimentation. Because the repeatability of the results depends on the users and not what is provided in the specification, the invention is not patentable under the "concrete" requirements of USC 101.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for some companies as provided by way of example does not reasonably provide enablement for any organization having multiple hierarchies (page 3 line 21-23). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

See the specification on page 14 line 24 – page 15 line 2; an internet company and a government agency are discussed as examples for stiffness modifiers. Furthermore, an example of a required score is given on page 17 line 4-8 – however, the specification does not address what type of organization nor what type of change being implemented that this applies to. Additionally, the types of questions to be asked of different types of hierarchies (as defined in the specification on page 6 under “Definitions”) is not provided. Nor is it provided how a response would be provided to these questions in a way that is enabling for the scope of any organization (The examiner notes that on page 14 line 6-9, a sample response value is given in terms of values, however given that the specification states that these would be totaled to sum up to a raw score and also states on page 13 line 12 that there could be any number of responses – then how would someone using this invention then apply the guidelines of

the final score given on page 17 line 1-7? If there are any number of responses, which are valued and then summed; and multiplied by a modifier; and yet, the maximum score is given as difference above 30, above which adverse reactions to the change would occur, then how would a user know for a given business organization what questions to ask, how to value them, which stiffness modifier to use, and which score these quantified and modified scores are to be compared to? The specification is not thus not enabled for the scope as laid out for organizations with a hierarchy. The examples given in the specification are not even consistent with each other. For example, sample stiffness modifiers are suggested for an internet company and a government agency, however nowhere else in the specification are examples provided of what questions to ask, how they are to be valued, and to what values these two different types of organizations. (Additionally, the examiner would respectfully point out that lumping all government agencies into one bracket as being generically 'resistant to change', does not fly, because some government agencies are more resistant to change than others). The examiner contrasts the disclosures of Guinta (see the detailed tables in the end of the specification) and Curtiss (see page O-54 and the details of how to apply the CMM for people) with the limited disclosure provided by the applicants as to how to use their invention.

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. **Claims 1-9 and 15-33** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **Claims 1, 15, 23 and 32**, the preamble describes a method for implementing a technical change in an organization. This is followed by a limitation that states that prior to implementing a proposed technical change, querying, quantifying, modifying and comparing steps are performed. However, none of these steps, taken individually or in total, provide for implementing a technical change in an organization, therefore the method is indefinite. These steps are not structurally connected with achieving the stated purpose in the preamble, therefore these claims are indefinite.

Furthermore, the claims cite the limitation "in anticipation of implementing a proposed technical change". It is unclear how one of ordinary skill in art would determine the metes and bounds of "anticipation". Since the use of this word in the claims is alone, i.e. nothing else is cited to provide for exactly what 'anticipates' means, it is completely subjective and therefore indefinite. E.g., If A occurs in advance of B, this does not necessarily mean that A occurs in anticipation of B. Thus how does one of ordinary skill in the art determine 'anticipation'?

Claims 2-14, 16-22 and 24-33 are dependent upon Claims 1, 15, and 23 above, and are therefore indefinite for at least the reasons cited above for Claims 1, 15 and 23.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 1, 3-5, 11, 12, 15, 17, 19, 21, 23, 25, 26 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta US 6,161,101** in view of **Curtis, Bill; Hefley, William E.; Miller, Sally; "People Capability Maturity ModelSM", Sept 1995, Software Engineering Institute, CMU/SEI-95-MM-02, sections O, L1-L4, (hereinafter Curtis).**

Regarding **Claim 1**, Guinta teaches:

Prior to implementing the technical change in a working environment of the organization;

Column 3 line 51-55, corrective action (i.e. implementing a technical change in the organization) is prior to implementing a change because Guinta's system is providing an evaluation to determine where corrective actions need to be applied. Guinta teaches a working environment of the organization in that he addresses providing an organizational assessment of a business (see column 4 line 35-40, the people in the purchasing office are working in purchasing).

querying a hierarchy in the organization to obtain a baseline response;

Column 3 line 61-65, assessor determines who in the organization should be queried in order to provide an organizational assessment. This would include identifying a hierarchy (i.e. chain of command) in the organization whose input would be entered into the system. E.g. column 4 line 34-36 – individuals in the hierarchy identified to provide assessment input.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e.. baseline response).

quantifying the baseline response into a raw score by assigning a value to each baseline response;

column 7 line 45-47, the input (i.e. baseline response) can be filtered using a variety of mathematical operations to be quantified (i.e. quantified into a raw score).

Column 8 line 10-15, values can be assigned to a baseline response, e.g. 1-10 scale that is indicative of the assessed answer.

modifying the raw score using at least one modifier that relates to a traditional response to change to yield a skill score; and

column 9 line 44-47, scores can be modified based on a wide variety of factors.

Column 6 line 54-56, the second input (i.e. modifier) reflects how extensively the organization is deployed (according to current practice, i.e. traditional practice) to address the issue (i.e. relates to a response to a change). See also column 6 line 56-63 for a discussion of how widely deployed a system is to address an issue, i.e. in relation to response to a change. –see column 7 line 35 for an example of how a modifier is used to modify a raw score.

comparing the skill score to a predetermined required score to determine strengths and weaknesses in the organization.

Column 11 line 45-46, the resulting scores (i.e. skill scores) are compared to selected thresholds (i.e. predetermined required score) to determine specific problem areas. If the resulting scores are lower than the threshold scores, then the system predicts there is a deficiency in the response in that particular area.

Guinta teaches the above to use a comparison to determine strength and weaknesses in an organization so corrective responses can address the weaknesses. Some of the weaknesses identified address technical aspects of the organization.

Guinta does not teach using a comparison to determine a predicted response to a technical change and does not teach performing an assessment in anticipation of a technical change.

(The examiner notes that the phrase "in anticipation of implementing a proposed technical change in a working environment of the organization:" is non functional descriptive material. The phrase is not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data (i.e. they do not affect the querying, quantifying, modifying and comparing steps). Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not

distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.)

However, Curtis teaches using a comparison to determine a predicted response to a technical change and performing an assessment in anticipation of a technical change (page xiv para 2, the management of people resources, i.e. which includes the CMM assessment taught by Curtiss, is for the development of software systems. The development of software systems is a technical change.)

Curtis teachings address the adaptation of the capability maturity model (CMM) to predict how organizations improve their abilities to work together as an organization in the development of software (see page O45 para 4, "workforce capability is an important predictor of business performance"). Software development is technical in nature where the interaction between individuals and teams is technical in nature (see page O6 para 2). The CMM model predicts how an organization will perform when developing new software (i.e. in response to a technical change) and also how an organization will perform in response to attaining higher levels of maturity in their technical processes for developing software (see page O7 para 1).

Both Curtis and Guinta address how to improve an organization's processes.

Guinta addresses assessing and analyzing an organization's performance, including technical performance. Guinta does not address how an organization responds to technical change. Curtis teaches assessing an organization to determine both how the organization functions at different levels of maturity (i.e. 5 maturity levels) and how the organization will perform in response to being moved from one level to another (i.e. a technical change). Curtis teaches that the roots of the CMM model go back to the early 1980's and are a further development of a continuous improvement philosophy that originated with Philip Crosby (see page O6 para 4). Curtis teaches that his approach improves the way in which organizations function (in this case, in how effective they are in software development).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing assessments and scoring of an organization's capabilities to include the step of using a comparison to predict how the organization will respond to a technical change, because it would provide a proven continuous improvement framework to improve process improvement in a large organization.

Regarding **Claim 3**, Guinta teaches:

querying a hierarchy in the organization;

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Column 3 line 61-65, assessor determines who in the organization should be queried in order to provide an organizational assessment. This would include identifying a hierarchy (i.e. chain of command) in the organization whose input would be entered into the system. E.g. column 4 line 34-36 – individuals in the hierarchy identified to provide assessment input.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e.. baseline response).

and receiving a set of hierarchy responses to the querying to yield the baseline response.

Column 4 line 39-41, any number of different individuals from different departments, including hierarchies in that department, may be select to enter inputs into the system. The total group of responses from these individuals would comprise a set of responses.

Column 7 line 52-54, e.g. a set of 100 different issues were assessed (i.e. responses received into system) from 10 assessors.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e.. baseline response). Any number of individuals in a hierarchy can provide input into the baseline response.

Regarding **Claim 4**, Guinta teaches:

the step of providing queries organized into query topics for querying the hierarchy.

Column 13 Table 1, this table illustrates an example of how the system disclosed by Guinta has queries organized into topics for querying the hierarchy. For example, 4.1 is the topic of 'Management Responsibility' and 4.2 is a set of queries addressing the 'Quality System'.

Regarding **Claim 5**, Guinta teaches:

wherein the query topics comprise:

leadership,

Column 13 table 4.1 "Management Responsibility" deals with leadership responsibilities within the management function in queries 1-7.

planning,

column 13 table 4.1 "Management Responsibility" deals with planning in queries 8.1-8.4.

administration,

column 18 table 4.16 'Control of Quality Records' deals with the overall administration of quality recordkeeping.

operations,

Column 20 table II.3 –"Manufacturing Capabilities" is an operations category.

quality assurance,

Column 19 table 4.17 –"Internal Quality Audits" deal with quality assurance.

communications,

Column 19 table 4.19 – ‘Servicing’ ensures that data is communicated to supplier, manufacturing, engineering and design activities

project management, and

column 14 table 4.4 “Design Control” deals with project management within the design context, e.g. query 1 “Design plans for each project have been established and responsibility assigned”.

training.

Column 19 table 4.18 – “Training”

Claims 11, 12, 15, 21, 23, 25 and 30 recite similar limitations as those recited in **Claims 1 and 3-5** above, and are therefore rejected under the same rationale.

Regarding **Claim 17**, Guinta teaches:

wherein the program code configured to quantify converts the inputted responses into values to yield the raw score.

Column 5 line 42-46, a user can input on a sliding scale on the computer their perception of how well the organization performs on an issue. The sliding scale is used by the computer program (i.e. program code) to convert the inputted response into a value for the inputted value – see Figure 7 and column 10 line 44-47

Regarding **Claim 19**, Guinta teaches:

wherein the program code configured to compare determines the mathematical difference between the skill score and the predetermined required score to yield the predicted response.

Column 11 line 40-46. The inputted response is converted into a numerical value. A predetermined threshold value is compared with the numerical value to determine if the threshold value is exceeded. The only way to determine if the threshold value is exceeded is to determine the mathematical difference between the numerical value (i.e. skill score) and the threshold value (i.e. predetermined required score). If the threshold values are not exceeded, resulting in a negative difference (i.e. predicted response), this means that the organization would have a weakness requiring corrective action – see column 11 line 47-50 and column 11 line 56-58. The above runs on a computer with code – see Figures 1, 7a & 7b & column 3 line 25-31.

Claim 26 recites similar limitations as those recited in **Claim 19** above, and is therefore rejected under the same rationale.

19. **Claims 2, 7-10, 14, 16, 22, 24, 27 and 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis**.

Curtis, Bill; Hefley, William E.; Miller, Sally; "People Capability Maturity ModelSM", Sept 1995, Software Engineering Institute, CMU/SEI-95-MM-02, sections O, L1-L4.

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Regarding **Claim 2**, Guinta all the limitations of Claim 1 above, and also teaches:

recommending a corrective action based on the predicted response,

Column 12 line 25-26, the system provides a report recommending corrective actions based on the previous assessment of the weaknesses of the organization.

Guinta does not teach:

and implementing the technical change

Curtis teaches:

and implementing the technical change

Page 041 paragraph 2 line 1-3, an action team is formed to implement the solution to remedy weakness(s) identified by the maturity model assessment.

Guinta and Curtis both address identifying deficiencies and opportunities for improvement within organizations, thus both Guinta and Curtis are analogous art.

Curtis teaches that applying CMM principles to an improvement program that implements technical changes recommended by a diagnostic or assessment program results in an organization having reduced turnover and a greater readiness to perform in fast-paced environments (page O-40 paragraph 1 line 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing organizational

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assessments and recommended corrective actions, to include implementing the recommended corrective actions, as taught by Curtis, because it would result in an organization having reduced turnover and a greater readiness to perform in fast-paced environments.

Regarding **Claim 7**, Guinta teaches that large entities such as corporations, professional associations and governmental units conduct assessments within their organizations, i.e. hierarchies (column 1 line 19-21).

Guinta does not teach:

wherein the hierarchies comprise senior management, mid-level management, administrators, analysts, operations, project management, and end users.

The examiner takes Official Notice that it is old and well known in the art of management for large organizations such as corporations, associations and governmental units to contain hierarchies comprised of:

Senior management -most firms contain a hierarchy at the top comprising a chairman or CEO then on down to VP or Senior VP and on down to director level positions. Most corporate firms distinguish the senior management hierarchy by determining incentive compensation of company stock, i.e., if you receive or are eligible to receive IC, then an individual is considered senior management

Mid-level management – usually characterized by the director and manager and first line supervisory positions. These positions are differentiated from senior management positions in that they do not receive stock or IC options.

Administrators – characterized by those who are either in charge of administering and/or supervising support positions such as office staffing, secretarial or office assistant pools.

Analysts – characterized by a business where analyzing and responding to information is primary to the business. Good examples of organizations containing hierarchies of analysts include financial firms and government intelligence groups dealing with national security issues.

Operations – characterized by those organizations involved in manufacturing or supply chain management where large numbers of individuals are organized into hierarchies due to specialization of labor.

Project management – characterized by organizations where conducting projects is a primary goal. Best examples here exist in construction, firms focusing on product development or defense-related government procurement (e.g. weapons systems).

End users – characterized by organizations where products are distributed down a hierarchy of distribution channels. A good example of this is a supply chain where a small component supplied by an organization is assembled into a progressively larger product and where each group forms a hierarchy. For example, Tier 1, 2 and 3 automotive suppliers form a hierarchy of end users.

These various hierarchies represent a broad spectrum of functional areas that are old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta regarding providing organizational assessments, to include the hierarchies of senior management, midlevel management, administrators, analysts, operations, project management and end users, because it would ensure a complete and accurate organizational assessment.

Regarding **Claim 8**, Guinta teaches all the limitations of Claim 1 above, but does not teach:

wherein the querying step comprises the step of querying each of the hierarchies in the organization, and wherein a separate baseline response is obtained for each hierarchy and for the organization.

Curtis teaches:

wherein the querying step comprises the step of querying each of the hierarchies in the organization, and wherein a separate baseline response is obtained for each hierarchy and for the organization

Page O-34 paragraph 2 line 4-6, a capability maturity assessment is a query of the hierarchies in an organization. It focuses on how hierarchies within an organization

are performing with respect to each of the People-CMM practice areas. In other words, a baseline for each organization hierarchy is established.

Page O-34 paragraph 4 line 3-4, the maturity level, or baseline, for an overall organization, is the lowest level of maturity that has been achieved by any of the hierarchies in the organization.

Guinta and Curtis both address identifying deficiencies and opportunities for improvement within organizations, thus both Guinta and Curtis are analogous art.

Curtis teaches that applying CMM principles to an improvement program that implements technical changes recommended by a diagnostic or assessment program results in an organization having reduced turnover and a greater readiness to perform in fast-paced environments (page O-40 paragraph 1 line 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing organizational assessments and recommended corrective actions, to include evaluating baseline assessments for hierarchies within the organization and for the overall organization, as taught by Curtis, because it would result in an organization having reduced turnover and a greater readiness to perform in fast-paced environments.

Regarding **Claim 9**, Guinta and Curtis teach all the limitations of Claim 8 above.

Guinta also teaches:

wherein each separate baseline response is quantified, modified and compared to a predetermined required score.

Column 7 line 45-47, the input (i.e. baseline response) can be filtered using a variety of mathematical operations to be quantified (i.e. quantified into a raw score).

Column 9 line 44-47, scores can be modified based on a wide variety of factors

Column 11 line 45-46, the resulting scores (i.e. skill scores) are compared to selected thresholds (i.e. predetermined required score) to determine specific problem areas. If the resulting scores are lower than the threshold scores, then the system predicts there is a deficiency in the response in that particular area.

Claims 10, 14, 16, 22, 24, 27 and 31-33 recite similar limitations as those recited in **Claims 2 and 7-9** above, and are therefore rejected under the same rationale.

20. **Claims 6, 13, 20 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis**.

Regarding **Claim 6**, Guinta teaches:

wherein each query comprises a set of questions,

Column 5 line 1-2, a series of questions are posed as part of a single query.

with each question in the set of questions in a yes/no format.

Column 5 line 62, yes/no inputs can be input into query.

Guinta does not teach inputting a 'sometimes' answer into the query.

Official Notice is taken that it is old and well known in the art for queries to have an answer as "sometimes". This allows for the possibility that the person answering the question wishes to indicate an answer that conveys an incident occasionally occurring.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing a yes/no answer to a query, to include the step of providing the possibility of a selection being 'sometimes', because it would allow a person to answer a question to indicate something occurring occasionally.

Claims 13, 20 and 29 recite similar limitations as those recited in **Claim 6** above, and are therefore rejected under the same rationale.

21. **Claims 18 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis** and further in view of **Bobic**.

Bobic, Michael; Davis, Eric; Cunningham, Robert; "The Kirton adaption-innovation inventory", Spring 1999, Review of Public Personnel Administration, v19n2, pp.18-31, Dialog 01991101 47253077.

Regarding **Claim 18**, Guinta teaches:

wherein the program code configured to modify performs a mathematical operation on the raw score with a modifier to yield the skill score,

Column 9 line 44-46, the numerical input (i.e. raw score) can be modified using a wide variety of factors to correlate the response with an output desired. This would include using a mathematical operation to revise (i.e. modify) the numerical input so that the result is correlated with the input information.

The above runs on a computer with code – see Figures 1, 7a & 7b & column 3 line 25-31.

Guinta does not teach:

and wherein the modifier comprises at least one of a stiffness modifier that relates to how a particular type of organization traditionally responds to change and an individual modifier that relates to how a particular individual traditionally responds to change.

Bobic teaches:

and wherein the modifier comprises at least one of a stiffness modifier that relates to how a particular type of organization traditionally responds to change and an individual modifier that relates to how a particular individual traditionally responds to change.

Page 3 paragraph 5 line 1-6, the KAI provides scores that measure how an individual traditionally responds to change by helping to quantify them as either an innovator or adaptor – see also page 2 paragraph 5 line 4-6, managers are scored on the KAI scale.

Bobic, Curtis and Guinta both address assessing organizational effectiveness, thus Bobic, Curtis and Guinta are all analogous art.

Bobic teaches that measuring a particular individual's resistance to change in characterizing them as innovators or adaptors is essential to balancing team membership in an organization so that organizational effectiveness is high in responding to change. (page 3 paragraph 1 line 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Guinta and Curtis, regarding scoring an organization with an initial score and a modifier, to include where the modifier relates to how a particular individual traditionally responds to change, as taught by Bobic, because it would enable an organization to effectively respond to change.

Claim 28 recites similar limitations as those recited in **Claim 18** above, and is therefore rejected under the same rationale.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES

JGS 11-27-2006

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